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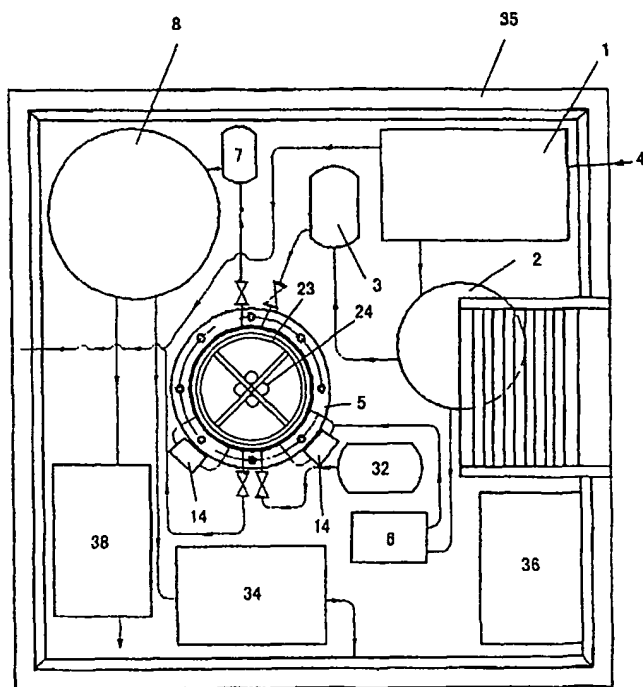
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(54) Title: AN EXTRACTION METHOD AND THE APPARATUS THEREOF

(54) 发明名称: 一种萃取方法及其装置



(57) Abstract: The invention discloses an extraction method and the apparatus thereof. The method according to the invention comprises the following steps: crushing and soaking the raw material, and then extracting, wherein the extracting step is carried out under a 18~33 kHz nonlinear vibration, using water as solvent, under 25~35MPa pressure and at 0~50°C temperature, thus obtaining an extract which contains the active components of the raw material. The method according to the invention also provides an apparatus for the nonlinear critical extraction. The applications of the method and apparatus according to the invention allow to extract the Chinese traditional medicines and plants at room temperature, thus not only ensuring the biological activity of the components in the medicines and plants, but achieving the substantial full-composition extraction of the Chinese traditional medicine and plants, as well as overcoming the disadvantages of the extract technology in the prior art which would destroy or partially extract the biological activities of partial components. Therefore, the method and apparatus of the invention can be widely used in the fields such as the Chinese traditional medicines, chemical engineering, food, etc.



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(57) 摘要

本发明公开了一种萃取方法及其装置。本发明方法的技术方案包括以下步骤:原料粉碎浸泡,在25MPa—35MPa压力范围内,18KHz—33KHz频率范围内非线性振动下,以水为溶剂,在0°C—50°C进行萃取,即可得到含有原料活性组分的萃取液。本发明方法还提供了一种非线性临界萃取的装置。采用本发明方法和装置可以在常温下对中药或植物进行提取,不仅保证中药或植物组分的生物活性,而且可以实现中药或植物的几乎全组分提取,克服了现有提取工艺破坏部分组分的生物活性或只能进行部分提取的缺点,可以广泛应用于中药、化工、食品等领域。